

## **FIRE CAPTAIN STUDY GUIDE**

A written examination for the class of **FIRE CAPTAIN** will consist of 116 multiple-choice questions. The examination will test job knowledge relative to this class in the following subject areas:

| <b>SUBJECT AREA/KNOWLEDGE</b>  | <b>APPROXIMATE<br/>% OF EXAM</b> |
|--|----------------------------------|
| <b>FIRE CHEMISTRY</b><br><br>Knowledge of the chemistry of fire, including ignition factors and properties of flammable and combustible materials.   | 6.0%                             |
| <b>FIRE COMBAT</b><br><br>Knowledge of fireground operations sufficient to direct subordinates in confining and extinguishing fires involving structures, flammable liquids and gases, and hazardous materials.  | 12.1%                            |
| <b>FORCIBLE ENTRY</b><br><br>Knowledge of the methods and techniques used to gain entry to areas of confinement where normal means of entry are locked or blocked, including the proper use of tools and equipment.  | 4.3%                             |
| <b>FIRE HOSE PRACTICES</b><br><br>Knowledge of the practices and procedures for the proper use and maintenance of fire hose.   | 4.3%                             |
| <b>FIRE SERVICE HYDRAULICS</b><br><br>Knowledge of fire service hydraulics, including the types and uses of fire streams; and the proper usage of nozzles, including flow velocity and nozzle discharge.   | 4.3%                             |
| <b>WATER SUPPLIES</b><br><br>Knowledge of the fundamental principles, requirements and standards used to provide water for firefighting purposes, including types of supply systems, distribution systems, sizes and carrying capacity of mains, hydrant specifications and maintenance procedures, and procedures for running flow tests. | 5.2%                             |
| <b>SELF-CONTAINED BREATHING APPARATUS</b><br><br>Knowledge of the procedures for the proper use, operation, and maintenance of self-contained breathing apparatus.   | 3.5%                             |

| SUBJECT AREA/KNOWLEDGE   | APPROXIMATE<br>% OF EXAM |
|--|--------------------------|
| <b>RESCUE PRACTICES</b><br><br>Knowledge of effective practices and procedures for removing persons from hazardous or life-threatening environments, including the proper use and application of tools and equipment.  | 3.5%                     |
| <b>SAFETY PRACTICES</b><br><br>Knowledge of effective practices and procedures to eliminate hazards or to minimize risks and prevent accidents and injuries in the performance of fire department tasks.   | 3.5%                     |
| <b>SALVAGE AND OVERHAUL</b><br><br>Knowledge of the practices and procedures used in salvage and overhaul operations, including the correct methods for accomplishing the final extinguishment of a fire and searching for hidden fires; and the proper procedures for protecting a structure and its contents from additional losses from smoke and water damage. | 4.3%                     |
| <b>VENTILATION</b><br><br>Knowledge of the practices and procedures for removing smoke and gases from a structure in order to facilitate firefighting.   | 4.3%                     |
| <b>FIRE HAZARDS</b><br><br>Knowledge of the factors which constitute ordinary or special fire hazards, including any materials, condition, or act which may contribute to the start of a fire or increase the extent or severity of the fire.  | 4.3%                     |
| <b>FIRE INVESTIGATION</b><br><br>Knowledge of fire investigation procedures sufficient to determine the cause, origin, and circumstances of a fire, including recognizing those factors that may indicate possible arson, securing the fire scene, and preserving possible evidence.   | 4.3%                     |
| <b>SPRINKLERS AND STANDPIPES</b><br><br>Knowledge of the types and operational features of sprinkler and standpipe systems, including location of system components and devices, and fire department use of systems.   | 4.3%                     |

| <b>SUBJECT AREA/KNOWLEDGE</b>  | <b>APPROXIMATE<br/>% OF EXAM</b> |
|--|----------------------------------|
| <b>BUILDING CONSTRUCTION</b><br><br>Knowledge of the principles of building construction technology and structural design sufficient to direct fire department operations at structural fires.   | 5.2%                             |
| <b>FIRE SERVICE MANAGEMENT</b><br><br>Knowledge of the principles of effective fire service management, including planning and directing company operations.   | 6.0%                             |
| <b>PUBLIC RELATIONS</b><br><br>Knowledge of effective public relations practices which foster a positive public image of the department through contact with the media, other agencies, and the public.  | 4.3%                             |
| <b>RECORDS AND REPORTS</b><br><br>Knowledge of effective records-keeping practices, including the procedures for completing and processing maintenance and other required records; and knowledge of the procedures for completing reports generated under the National Fire Incident Reporting System. | 6.0%                             |
| <b>SUPERVISION</b><br><br>Knowledge of the practices and techniques used in effective supervision in order to plan, organize, direct, and evaluate the work of subordinates, to resolve conflicts, and to maintain discipline.   | 10.3%                            |

### **REFERENCE LIST**

The following references/publications were used to source or develop the majority of the test items included in this examination:

### **PRIMARY REFERENCE MATERIAL**

**INTERNATIONAL FIRE SERVICE TRAINING ASSOCIATION (IFSTA)/ FIRE PROTECTION PUBLICATIONS** (Training Manuals):

Fire and Emergency Services Company Officer, 4th ed., 2007.

Essentials of Firefighting, 5th ed., 2008.  
Pumping Apparatus Driver/Operator Handbook, 2nd ed., 2006.  
Fire Service First Responder, 2000.  
Fire Hose Practices, 8th ed., 2004.  
Building Construction Related to the Fire Service, 4th ed., 2008.  
Introduction to Fire Origin and Cause, 3rd ed., 2005.  
Fire Inspection and Code Enforcement, 6th ed., 1998.  
Fire Service Ground Ladders, 9th ed., 1996.  
Principles of Foam Fire Fighting, 2nd ed., 2003.  
Fire Service Search and Rescue Practices, 7<sup>th</sup> ed., 2005  
Hazardous Materials for First Responders, 3<sup>rd</sup> ed., 2004.  
Respiratory Protection for Fire and Emergency Services, 1<sup>st</sup> ed., 2002.  
Aerial Apparatus Driver/Operator Handbook, 1<sup>st</sup> ed., 2000.

**EFFECTIVE SUPERVISORY PRACTICES**, International City Management Association (ICMA), 1120 G Street, N.W., Washington, D.C. 20005, 4th ed., 2005.

**NOTE: Obtain through LSU Firemen Training Program or IFSTA Fire Protection Publications.**

### **SECONDARY REFERENCE MATERIAL**

### **NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PUBLICATIONS AND STANDARDS:**

**FIRE PROTECTION HANDBOOK**, NFPA, 19th ed., 2003.

**NFPA INSPECTION MANUAL**, NFPA, 8th ed., 2002.

**FIRE COMMAND**, Brunacini, Alan V., NFPA, 2<sup>nd</sup> ed., 2002.

### **OTHER RECOMMENDED PUBLICATIONS:**

**KIRK'S FIRE INVESTIGATION**, Brady, A Prentice-Hall Division, Englewood Cliffs, New Jersey, 07632, 6th ed., 2007.

The local civil service board should make this study guide available to all applicants in whatever manner the board deems appropriate.

While there are no provisions requiring this office to provide study guides for any competitive or promotional examinations, such material will be provided as a service to assist applicants in preparing for an examination. The State Examiner's office has no control whatsoever over the local availability of reference material (mentioned in the study guides), nor do we feel constrained to limit examination questions to only that material which is available locally. Examination content, weighting of subject areas, and length of examination, may vary with each administration of an examination to reflect any updated job analysis information. Percentages and numerical estimations are provided as approximations.